Attorney's Docket: 074263.0209 (SC-98-025 C3-E)

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### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Shilin Chen

Filing Date:

January 27, 2004

Title:

FORCE-BALANCED ROLLER-CONE BITS, SYSTEMS,

DRILLING METHODS, AND DESIGN METHODS

#### MAIL STOP PATENT APPLICATION

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

## INFORMATION DISCLOSURE STATEMENT

Applicant respectfully requests, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form, and previously cited in U.S. Application Serial No. 10/383,805 by Applicant and entitled "Force-Balanced Roller-Cone Bits, Systems, Drilling Methods, and Design Methods," be considered and cited in the examination of the above-identified continuation patent application. Pursuant to 37 C.F.R. § 1.98(d), copies of these references are not being furnished. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that these references qualify as prior art or that these references are material to the patentability of the present application.

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Also, pursuant to Manual of Patent Examining Procedures § 2001.06(c), Applicant submits that the subject matter of the instant Application is involved in Civil Action No. 4-02CV269 in the United States District Court for the Eastern District of Texas, Sherman Division, styled *Halliburton Energy Services, Inc. v. Smith International, Inc.* (the "Litigation"). The attached PTO-1449 form includes documents relating to the Litigation. As stated above, Applicant requests that such documents be considered and cited in the examination of the above-identified patent application. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that these references qualify as prior art or that these references are material to the patentability of the present application.

Pursuant to 37 C.F.R. § 1.97(b), no fee is believed due. If, however, Applicant has overlooked the need for a fee, the Commissioner is hereby authorized to charge any underpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P. Attorneys for Applicant

And Id

Luke K. Pedersen Reg. No. 45,003

Date: January 27, 2004

CORRESPONDENCE ADDRESS: Customer No. 31625

Luke K. Pedersen Baker Botts L.L.P. 1500 San Jacinto Center 98 San Jacinto Blvd. Austin, Texas 78701-4039 214.953.6655

## PTO-1449

## Information Disclosure Citation In an Application

Application No.

Applicant(s)
Shilin Chen

Docket Number 074263.0209 (SC-98-025 C3-E) Group Art Unit Unassigned Filing Date
January 27, 2004

## **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	1,847,981	03/01/1932	C.E. Reed			07/23/1930
В	2,117,679	05/17/1938	C.E. Reed	255	71	12/27/1935
С	2,122,759	07/05/1938	F.L. Scott	255	71	07/16/1936
D	2,132,498	10/11/1938	H.C. Smith	255	71	07/22/1936
Е	2,165,584	07/11/1939	H.C. Smith et al.	255	71	07/22/1936
F	2,230,569	02/04/1941	J.H. Howard et al	255	71	12/20/1939
G	2,496,421	02/07/1950	J.C. Stokes	255	71	05/07/1946
Н	2,728,559	12/27/1955	E.G. Boice et al.	255	334	12/10/1951
I	2,851,253	09/09/1958	E.G. Boice	255	347	04/27/1954
J	4,187,922	02/12/1980	Phelps	175	374	05/12/1978
K	4,334,586	06/15/1982	Schumacher	175	374	06/05/1980
L	4,343,371	08/10/1982	Baker III, et al	175	329	04/28/1980
M	4,393,948	07/19/1983	Fernandez	175	374	04/01/1981
N	4,408,671	10/11/1983	Munson	175	377	02/19/1982
0	4,427,081	01/24/1984	Crawford	175	376	01/19/1982
P	4,611,673	09/16/1986	Childers et al	175	340	11/21/1983
Q	4,657,093	04/14/1987	Schumacher	175	353	02/03/1982

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	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
		j l			.	YES	NO
R	SU 1768745 A1	10/15/1992	、SU	E 21 B	10/16	X	_
S	SU 1441051 A2	11/30/1988	SU	E 21 B	10/16	X	_
T	EP 0511547 A2	04/14/1992	EPO	E 21 B	10/16	X	
 U	EP 0511547 A3	04/14/1992	EPO	E 21 B	10/16	X	
V	EP 0511547 B1	04/14/1992	EPO	E 21 B	10/16	X	

**EXAMINER** 

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE

## PTO-1449

# Information Disclosure Citation In an Application

Application No.

Applicant(s)
Shilin Chen

Docket Number 074263.0209 (SC-98-025 C3-E) Group Art Unit Unassigned Filing Date
January 27, 2004

## **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
w	4,815,342	03/25/1989	Brett et al.	76	108	12/15/1987
X	4,848,476	07/18/1989	Deane et al	175	340	02/29/1988
Y	5,137,097	08/11/1992	Fernandez	175	228	10/30/1990
Z	5,197,555	03/30/1993	Estes	175	374	05/22/1991
AA	5,224,560	07/06/1993	Fernandez	175	374	05/18/1992
AB	5,311,958	05/17/1994	Isbell et al	175	341	09/23/1992
AC	5,318,136	06/07/1994	Rowsell et al	175	24	03/06/1991
AD	5,341,890	08/30/1994	Cowthorne et al	175	374	01/08/1993
AE	5,370,234	12/06/1994	Sommer, Jr. et al	209	44.1	11/08/1991
AF	5,372,210	12/13/1994	Harrell	175	431	10/12/1993
AG	5,394,952	03/07/1995	Johns et al	175	332	08/24/1993
AH	5,415,030	05/16/1995	Jogi et al.	73	151	04/08/1994
ΑI	5,416,697	05/16/1995	Goodman	364	422	07/31/1992
AJ	5,421,423	06/06/1995	Huffstutler	175	374	03/22/1994
AK	5,704,436	01/06/1998	Smith et al	175	27	03/25/1996

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1						YES	NO
AL	GB 2241266 A	08/28/1991	GB	E21B	10/46	X	

	OTHER DOCUMENTS (Including Author, Title, Source, and Pertinent Pages)	DATE
AM	MA Dekun, The Operational Mechanics of the Rock Bit, Petroleum Industry Press, Beijing, China, (1996)	
AN	D. Ma, D. Zhou & R. Deng, The Computer Stimulation of the Interaction Between Roller Bit and Rock, (1995)	
AO	Shilin Chen, Linear and Nonlinear Dynamics of Drillstrings, (1994-1995)	
AP	D. Ma, & J.J. Azar, Dynamics of Roller Cone Bits, (12/1985)	
AQ	D.K.Ma & S.L. Yang, Kinamatics of the Cone Bit, (06/1985)	
AR	Dma & J.J. Azar, A New Way to Characterize the Gouging-Scraping Action of Roller Cone Bits, (1989)	
AS	Russian bit catalog listing items "III 190,5 Т-ЦВ-1" and "III 109,5 ТКZ-ЦВ", (prior 1997)	-
AT	L.E. Hibbs, Jr., et al, Diamond Compact Cutter Studies for Geothermal Bit Design, (Nov. 1978)	

**EXAMINER** 

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

#### Application No. Applicant(s) PTO-1449 Shilin Chen Filing Date Group Art Unit Docket Number **Information Disclosure Citation** January 27, 2004 074263.0209 Unassigned In an Application (SC-98-025 C3-E)

## **U.S. PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DAT
AU	5,715,899	02/10/1998	Liang et al	175	374	02/02/1996
AV	5,730,234	03/24/1998	Putot	175	50	05/14/1996
AW	5,794,720	08/18/1998	Smith et al	175	40	03/25/1996
AX	5,812,068	09/22/1998	Wisler et al	340	855.5	12/12/1995
AY	5,813,480	09/29/1998	Zaleski, Jr., et al	175	40	12/03/1996
AZ	5,813,485	09/29/1998	Portwood	175	430	06/21/1996
BA	5,839,526	11/24/1998	Cisneros, et al.	175	431	04/04/1997
ВВ	6,002,985	12/14/1999	Stephenson	702	13	05/06/1997
BC	6,012,015	01/04/2000	Tubel	702	6	09/18/1997
BD	6,021,377	02/01/2000	Dubinsky et al	702	9	10/23/1996
BE	6,044,325	03/28/2000	Chakravarthy et al	702	7	07/21/1998
BF	6,057,784	05/02/2000	Schaaf et al	340	854.4	09/02/1997
BG	6,095,262	08/01/2000	Chen	175	57	08/31/1999
ВН	6,109,368	09/29/2000	Goldman et al	175	39	11/13/1998
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BJ	6,241,034	06/01/2001	Steinke et al	175	331	09/03/1998
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	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSI YES	ATION NO		
BL									
BM									

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BN	Adam T. Bourgoyne Jr et. al., "Applied Drilling Engineering", Society of Petroleum Engineers	
	Textbook Series (1991)	
BO	J. P. Nguyen, "Oil and Gas Field Development Techniques: Drilling" (translation 1996, from	
	French original 1993)	

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U.S. PATENT AND TRADEMARK OFFICE

Page 4 of 4

PTO-1449			Application No.		Applicant(s) Shilin Chen				
	Infor	mation Disclosure of In an Application		Docket Number 074263.0209 (SC-98-025 C3-E)	Group Art Unit Filin			ng Date nuary 27, 2004	
			U.S	. PATENT DOCUMENT	rs				
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCL	ASS	FILING	DATE
	BP	6,412,577	07/02/2002	Chen	175	57		08/01/	′2000
	BQ	6,527,068	03/01/2003	Singh et al	175	431		08/16/	′2000
	BR								
			FORE	IGN PATENT DOCUMI	ENTS				
		DOCUMENT NO.	DATE	COUNTRY	CLASS	CLASS SUBCLASS		TRANSL YES	ATION NO
	BS								
			LITIG	ATION DOCUMENTS				DAT	re
	BT	United States District Co	urt for the Easterr	fringement and Jury Demand, file District of Texas, Sherman Div	ision, Civil Acti	, 2002 in the on No. 4-		09/06/2002	
	BU	02CV269, Halliburton Energy Services, Inc. v. Smith International, Inc., 4 pages  Answer and Counterclaim of Smith International, filed March 14, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, Halliburton Energy							3
	BV	Services, Inc. v. Smith International, Inc., 6 pages  Response of Plaintiff and Counterclaim Defendant to Defendant's Counterclaim of Declaratory Judgment, filed April 3, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, Halliburton Energy Services, Inc. v. Smith International, Inc., 3 pages							3
	BW	First Amended Answer and Counterclaim of Smith International, filed October 9, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, Halliburton Energy Services, Inc. v. Smith International, Inc., 8 pages							3
			OT	HER DOCUMENTS				DAT	rr
	BX	"Making Hole", part of	(Including Auth Rotary Drilling	or, Title, Source, and Pertinent Series, edited by Charles Ki	rkley (1983)	-			
	BY	"Drilling Mud", part of	Rotary Drilling	Series, edited by Charles Ki	rkley (1984)				•
	BZ			tion and Evaluation", presenter oleum Institute, Division of			f		
	CA	J.C. Estes, "Selecting t 1971, pp1359-1367	he Proper Rota	y Rock Bit", Journal of Petro	leum Technolo	gy, Nov.,			
	СВ			ns in Rock Mechanics", Amer	rican Society o	f Mechanic	al		
	CC	Dykstra, et. al., "Exper	imental Evalua	tions of Drill String Dynamic.	s", Amoco Rej	oort Numbe	r	- · · -	
	CD	SPE 28323, 1994  Kenner and Isbell, "Dynamic Analysis Reveals Stability of Roller Cone Rock Bits", SPE 28314, 1994							
	CE				•				
	GF								
EX NE	AMI R	DATE CONSIDERED	)					<u> </u>	
		: Initial if citation considered,		ion is in conformance with MPEP §	609. Draw line th	rough citation	if not	in conformance	ce and not